

MEMORANDUM FOR THE RECORD

6 February 1963

FROM : [REDACTED] 25X1A9a

SUBJECT: Low Level Keyer Test at Langley

1. On 23 January, Mr. [REDACTED] was notified that the five keyers installed in November 1962 were causing considerable trouble. Between November and January regular Telco checks with Langley had indicated that no problems had been encountered. On 23 January a check of the trouble cards that had actually been set aside indicated that the TD's had been operating satisfactorily with no more than 3 TD troubles per circuit noted except one which showed somewhat greater than 1 trouble every two days. One of the problems of communication was that trouble cards had not been set aside for terminal gear such as reperforators, ASR sets, or KW-26 units.

25X1A9a

2. All the maintenance trouble cards for January were sorted through completely and the total number of trouble cards were a little more than doubled on circuits associated with the TD keyers. However, even with these cards added, the troubles were not over-excessive and did not show the entire picture. A further check revealed that the maintenance men had been clearing troubles on these circuits without requiring the operators to write up a trouble card. This is apparently normal procedure where the same trouble develops within a short period of time.

3. On 24 January, Mr. [REDACTED] modified the TD filter on cabinet 3, circuit no. 2, the TD which had about 5 times as many trouble cards as any other circuit. The circuit was watched for about 1 hour and then Mr. [REDACTED] left for home. A short time later circuit no 3 in the cabinet (next to the modified circuit) went bad and later circuit no. 1 and 2 also went bad. This trouble persisted until the maintenance men removed the TD's and keyers and went back to standard keying. The trouble was found the next morning. The new filter circuit required a ground on the negative side of the 60 MA signal line, and this ground on one signal line caused 3 separate circuits to go out of operation. It is now known that the negative DC source is grounded in the frame room and therefore no ground is required at the TD cabinet, however, this does not explain the outage.

25X1A9a

25X1A9a

4. As a result...

~~CONFIDENTIAL~~

Low Level Keyer Test at Langley

4. As a result of this outage and previous unlogged troubles the maintenance supervisor, on 25 January, requested that all keyers be removed from the circuit until corrective measures could be taken. At least one circuit will be set up for further operational tests. It appears that there must have been at least an average of 1 trouble per day on each of the 5 circuits.

5. As a result of this particular keyer test there seems to be a great necessity of having an area set aside where 24 hour a day service testing can be accomplished. Test on operational circuits have proven the wrong place to make a service test since it places a burden on the maintenance personnel and their supervisors to accomplish a task which should be the responsibility of the engineering group concerned. At this time there is no facility where 24 hour a day tests can be accomplished since it is understood that this normally requires a man be available in case of fire. It is recommended that ESB/WES have an area approved for 24 hour continuous tests.

6. The overall result of this particular test is that more than 1 month may have been lost since operational problems were not found. Further, incorrect decisions regarding use of this keyer may have been made.

25X1A9a

7. Mr. [REDACTED] will work with Mr. [REDACTED] at Langley to resolve the problem, as it is definitely the result of the old low level keying problem - TD contacts. Both "pointed" and gold contacts will be used to determine the necessary "fix". A 6 circuit TD cabinet is being modified and will be operated 24 hours a day in the WES shop area where an accurate trouble log can be maintained for 3 types of TD contact configurations.

25X1A9a

[REDACTED] 25X1A9a

Distribution:

Original - Routing/File

1 - Chrono

② - Monthly Report

~~CONFIDENTIAL~~

